AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-35 (Cancelled).

36. (Currently Amended) A process for manufacturing a self-extinguishing cable comprising at least one transmissive element and at least one flame-retardant coating in a position radially external to said at least one transmissive element, wherein said at least one coating comprises an expanded flame-retardant polymeric material comprising:

(a) at least one expandable polymer;

(b) at least one expanding agent;

(c) at least one flame-retardant inorganic filler in an amount of ~~100~~120 parts by weight to ~~250~~200 parts by weight with respect to 100 parts by weight of the polymer;

the process comprising:

(i) providing said at least one expandable polymer, said at least one expanding agent, and said at least one flame-retardant inorganic filler to form said flame-retardant material;

(ii) feeding the flame-retardant polymeric material to an extruding apparatus, therein melting and mixing it;

(iii) passing the flame-retardant polymeric material obtained in step (ii) through at least one static mixer; and

(iv) depositing by extrusion the flame-retardant polymeric material obtained in step (iii) onto said at least one transmissive element conveyed to said extruding apparatus, and thereby expanding the flame-retardant polymeric material, wherein the expanded flame retardant polymeric material has an expansion degree of 20% to 50%.

37. (Previously Presented) The process according to claim 36, wherein the at least one expandable polymer and the at least one flame-retardant inorganic filler are premixed before the step of feeding them to the extruding apparatus.

38. (Previously Presented) The process according to claim 36, wherein the at least one flame-retardant coating has electrical insulation properties.

39. (Previously Presented) The process according to claim 38, wherein the at least one flame-retardant coating is an insulation coating layer placed in a position radially external to said transmissive element.

40. (Previously Presented) The process according to claim 39, wherein the insulation coating layer is placed in direct contact with the transmissive element.

41. (Previously Presented) The process according to claim 36, wherein the cable comprises at least two transmissive elements and a filling material which fills the interstitial zones between said at least two transmissive elements, said filling material comprising said expanded flame-retardant polymeric material.

42. (Previously Presented) The process according to claim 36, wherein the expandable polymer is selected from: polyolefins, copolymers of various olefins,

olefin/unsaturated ester copolymers, polyesters, polyethers, polycarbonates, polysulphones, phenolic resins, ureic resins, or mixtures thereof.

43. (Previously Presented) The process according to claim 42, wherein the expandable polymer is selected from: polyethylene, polypropylene, elastomeric ethylene/propylene copolymers, ethylene/propylene/diene terpolymers, natural rubber, butyl rubber, ethylene/vinyl ester copolymers, ethylene/acrylate copolymers, ethylene/α-olefin thermoplastic copolymers, polystyrene, acrylonitrile/butadiene/styrene resins, halogenated polymers, polyurethane, polyamides, aromatic polyesters, copolymers or mechanical blends thereof, or mixtures thereof.

44. (Previously Presented) The process according to claim 42, wherein the expandable polymer is a polyolefinic polymer or copolymer based on ethylene and/or propylene.

45. (Previously Presented) The process according to claim 44, wherein the expandable polymer is selected from: polyethylene, copolymers of ethylene with a least one α-olefin containing from 3 to 12 carbon atoms, polypropylene, thermoplastic copolymers of propylene with ethylene and/or at least one α-olefin containing from 4 to 12 carbon atoms, copolymers of ethylene with at least one ester selected from alkyl acrylates, alkyl methacrylates and vinyl carboxylates, wherein the alkyl and the carboxylic groups therein are linear or branched, and wherein the linear or branched alkyl group may contain from 1 to 8 carbon atoms, while the linear or branched carboxylic group may contain from 2 to 8 carbon atoms, or mixtures thereof.

46. (Previously Presented) The process according to claim 36, wherein the expandable polymer is selected from:

(a) copolymers of ethylene with an ethylenically unsaturated ester, wherein the amount of the unsaturated ester is 5% by weight to 50% by weight;

(b) elastomeric copolymers of ethylene with at least one C_3-C_{12} α-olefin, and optionally a diene, having the following composition: 35 mol% - 90 mol% of ethylene, 10 mol% - 65 mol% of α-olefin, and 0 mol% - 10 mol% of the diene;

(c) copolymers of ethylene with at least one C_4-C_{12} α-olefin, and optionally a diene, having a density of 0.86 g/cm^3 to 0.90 g/cm^3 and the following composition: 75 mol% - 97 mol% of ethylene, 3 mol% - 25 mol% of α-olefin, and 0 mol% - 6 mol% of a diene;

(d) polypropylene modified with ethylene/C_3-C_{12} α-olefin copolymers, wherein the weight ratio between the polypropylene and the ethylene/C_3-C_{12} α-olefin copolymer is 50/50 to 30/70.

47. (Previously Presented) The process according to claim 36, wherein the expandable polymer is selected from a propylene homopolymer or a copolymer of propylene with at least one olefinic comonomer selected from ethylene and an α-olefin other than propylene, having an elastic flexural modulus of 30 to 900 MPa.

48. (Previously Presented) The process according to claim 47, wherein the propylene homopolymer or a copolymer of propylene with at least one olefinic comonomer selected from ethylene and an α-olefin other than propylene, has the following characteristics:

a melting point of 140°C to 165°C;

a heat of fusion of 30 J/g to 80 J/g;

a fraction which is soluble in boiling diethyl ether, in an amount of less than or equal to 12% by weight, having a heat of fusion of less than or equal to 4 J/g;

a fraction which is soluble in boiling n-heptane, in an amount of 15% to 60% by weight, having a heat of fusion of 10 J/g to 40 J/g; and

a fraction which is insoluble in boiling n-heptane, in an amount of 40% to 85% by weight, having a heat of fusion of greater than or equal to 45 J/g.

49. (Previously Presented) The process according to claim 36, wherein the expanding agent is selected from compounds containing at least one nitrogen atom.

50. (Previously Presented) The process according to claim 49, wherein the expanding agent is selected from: ammonium salts, urea, melamine, guanidine, melamine cyanurate, guanidylurea, azodicarbonamide, hydrazides, para-toluenesulphonylhydrazide, benzenesulfonylhydrazide, 4,4'-oxybis(benzenesulfonylhydrazide), azobis(isobutyronitrile), dinitro pentamethylene tetramine, expandingly acceptable derivatives thereof, or mixtures thereof.

51. (Previously Presented) The process according to claim 50, wherein the expanding agent is azodicarbonamide, 4,4'-oxybis(benzenesulfonyl-hydrazide), or mixtures thereof.

52. (Previously Presented) The process according to claim 36, wherein the expanding agent is selected from mixtures of organic acid with carbonates and/or bicarbonates.

53. (Previously Presented) The process according to claim 36, wherein the expanding agent is added to the flame-retardant polymeric material in an amount of 0.01 part by weight to 5.0 parts by weight with respect to 100 parts by weight of the expandable polymer.

54. (Previously Presented) The process according to claim 53, wherein the expanding agent is added to the flame-retardant polymeric material in an amount of 0.1 part by weight to 2.0 parts by weight with respect to 100 parts by weight of the expandable polymer.

55. (Previously Presented) The process according to claim 36, wherein the expanding agent is compounded as a masterbatch formed by mixing the expanding agent with an olefin-based polymer.

56. (Previously Presented) The process according to claim 55, wherein the olefin-based polymer is ethylene/vinyl acetate copolymer.

57. (Previously Presented) The process according to claim 55, wherein the masterbatch comprises an amount of expanding agent of 1% by weight to 80% by weight with respect to the total weight of the olefin-based polymer.

58. (Previously Presented) The process according to claim 57, wherein the masterbatch comprises an amount of expanding agent of 10% by weight to 70% by weight with respect to the total weight of the olefin-based polymer.

59. (Previously Presented) The process according to claim 36, wherein the flame-retardant polymeric material comprises at least two expanding agents, said expanding agents being present in a ratio of 0.5:3.

60. (Previously Presented) The process according to claim 59, wherein said expanding agents are present in a ratio of 1:2.

61. (Previously Presented) The process according to claim 60, wherein said expanding agents are present in a ratio of 1:1.

62. (Previously Presented) The process according to claim 36, wherein the flame-retardant inorganic filler is selected from hydroxides, hydrated oxides, salts or hydrated salts of metals, or mixtures thereof.

63. (Previously Presented) The process according to claim 62, wherein the flame-retardant inorganic filler is selected from: magnesium hydroxide, alumina trihydrate, magnesium hydrated carbonate, magnesium carbonate, mixed hydrated carbonate of magnesium and calcium, mixed magnesium and calcium carbonate, or mixtures thereof.

64. (Previously Presented) The process according to claim 62, wherein the flame-retardant inorganic filler is in the form of particles which are untreated or surface-treated with saturated or unsaturated fatty acids containing from 8 to 24 carbon atoms, or metal salts thereof.

65. (Cancelled).

66. (Previously Presented) The process according to claim 36, wherein at least one coupling agent is added to the flame-retardant polymeric material, said coupling agent being selected from short chain saturated silane compounds or silane compounds containing at least one ethylenic unsaturation, epoxides containing an

ethylenic unsaturation, monocarboxylic acids or dicarboxylic acids having at least one ethylenic unsaturation, or derivatives thereof.

67. (Previously Presented) The process according to claim 66, wherein the coupling agent is pre-grafted onto a polyolefin.

68-70. (Cancelled).

71. (New) The process according to claim 36, wherein the expanded flame retardant polymeric material has an expansion degree of 30% to 50%.